

# **A STEP-BY-STEP CAS (COMPUTER ALGEBRA SYSTEM) APPLICATION USING A PROBLEM SET DATA STRUCTURE**

## **Abstract**

The present invention discloses the use of a hand-held calculator programmed to teach mathematics in a manner which emulates traditional step-by-step teacher-student teaching methods and shows the important intermediate steps. The method allows the use of selected data sets of problems and provides choices of mathematical operations, including transformations which are applicable or can operate on a selected problem. Importantly, the choices available to the student will not always lead to a solution or simplification of the problem. This allows the student to see the effect of an improper choice, as well as a proper choice.

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